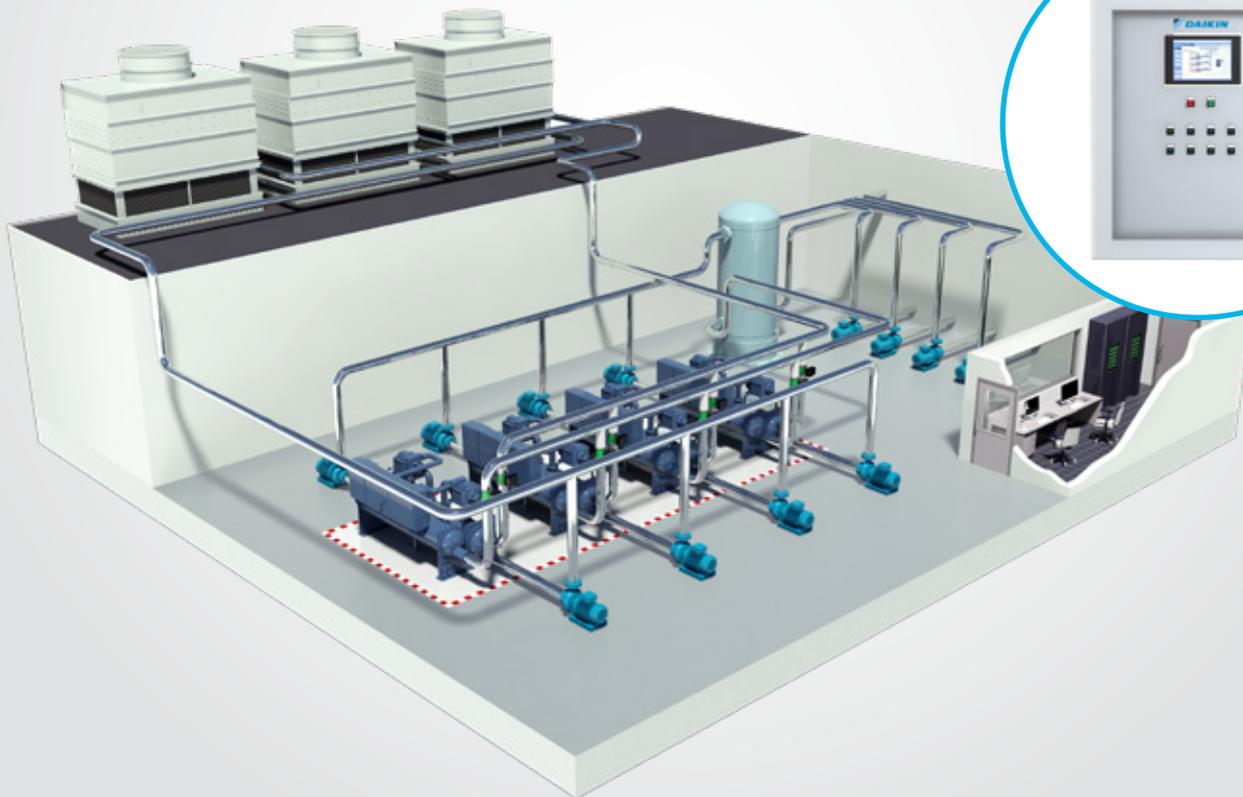




# iCM intelligent chiller manager

for chiller plant rooms



# What is iCM, the intelligent chiller manager?

## Factory-engineered system control to manage a chiller plant room

Thus optimising its performance and increasing its reliability by:

- › Optimal start-up, sequencing & staging of chillers
- › Matching chiller capacity to load demand

### iCM's main functionalities:

#### Availability

Determines whether chillers are available or not, based on:

- › Inputs from the chiller unit controllers
- › Modbus communication status
- › Pump status

#### Sequencing

Optimises the order in which available chillers are turned on and off depending on operating hours, energy efficiency, etc.

#### Staging

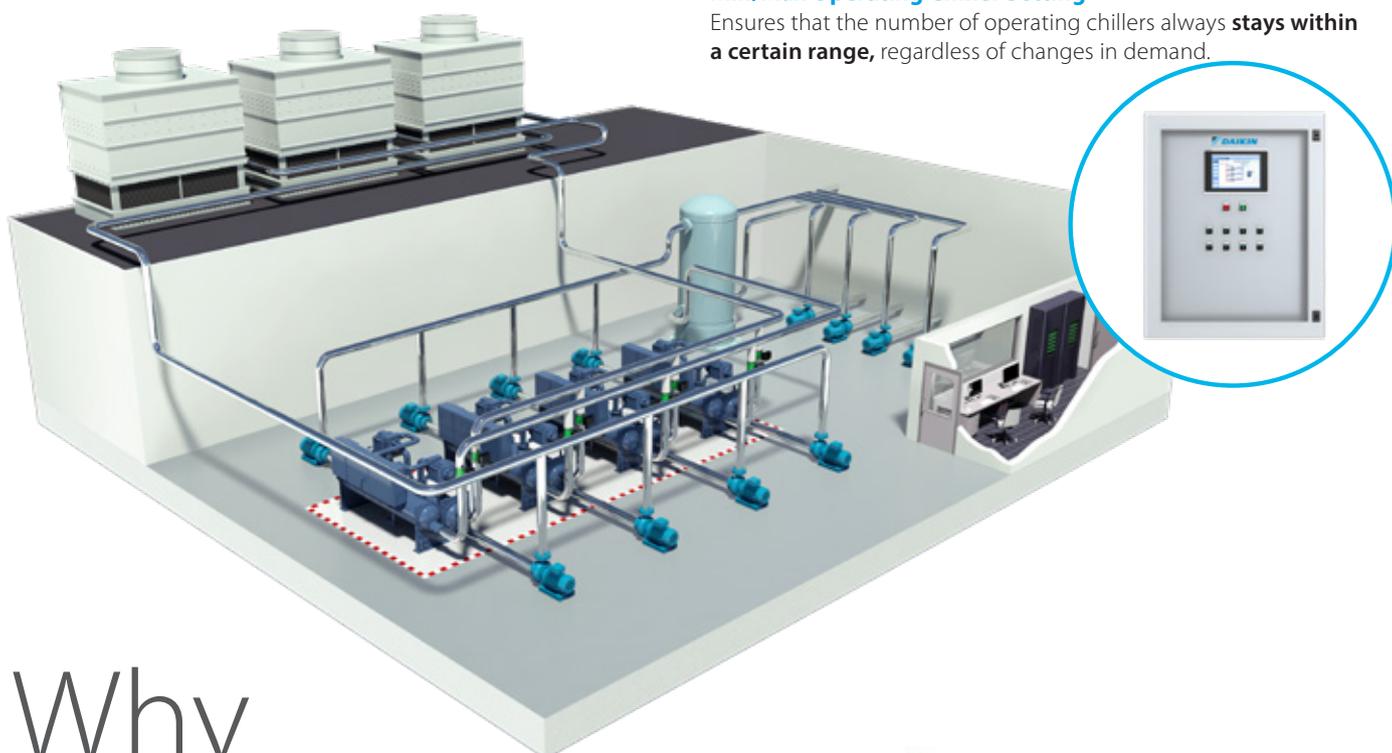
Calculates **energy-optimal stage-up/stage-down** of the chiller by determining the increased capacity demand by capacity control, compensation of temperature and rotation. This function aims at providing the most energy-efficient combination of chillers on a continuous basis.

#### Stopping Last Chiller/Recycling

Captures a rise in demand when the **last chiller is staged down**, by operating the pump dedicated to the next ON chiller at a minimum VFD frequency.

#### Min/Max Operating Chiller Setting

Ensures that the number of operating chillers always **stays within a certain range**, regardless of changes in demand.



## Why choose iCM?

- › Optimise performance
- › Increase reliability
- › Reduce energy costs
- › Reduce maintenance costs
- › Factory-engineered and tested
- › Remote control and monitoring. From one-time commissioning to real-time commissioning

**Chiller**  
**Intelligent Manager**

**Daikin is the best qualified partner  
to optimise the operation of a Daikin chiller  
plant room.**

# Product line-up and specifications

iCM is available in two versions:

<b>Standard</b>			
(Configuration )		(Basic) (≤4 MT3 chillers)	(Light/Full) (≤4/≤8 MT3 chillers & peripherals)
<b>Customised</b>			
(Free-programmable )		(Customised )	

## Standard version

Configurable controller with a pre-set library of applications. The standard system is divided into three configurations according to how many chillers and peripherals it can manage.

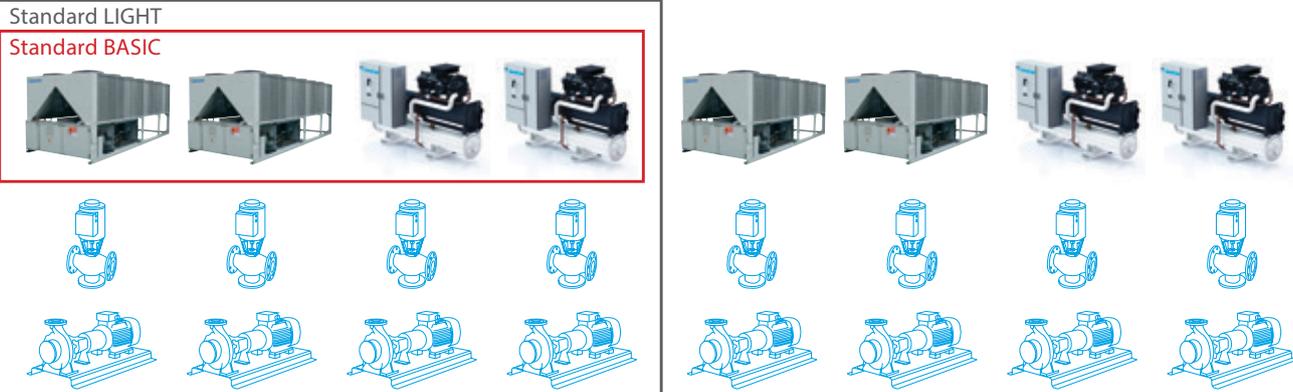
## Standard is the right solution for you when you have:

- > Up to 8 x (Air-cooled/Water-cooled chillers + shut-off valves + pumps)
- > Only a primary, or a primary-secondary system
- > Constant or variable primary flow

**Standard FULL**

Standard LIGHT

Standard BASIC



## Customised version:

Free-programmable controller for those applications not covered by the Standard version.

## Remote control and monitoring possibilities

(valid for both Standard and Customised versions)

- > **Connectivity to Daikin's remote monitoring and control system ([www.daikinon-site.com](http://www.daikinon-site.com))** for remote monitoring and service providing Internet connection to the main controller
- > **Integration with general BAS/BMS** offered through BACnet or Modbus Modules based on BACnet/IP or Modbus RTU/RS-485 protocols
- > **Built-in HMI, Remote HMI, Web HMI and [daikinon-site.com](http://www.daikinon-site.com)** are available for control and configuration

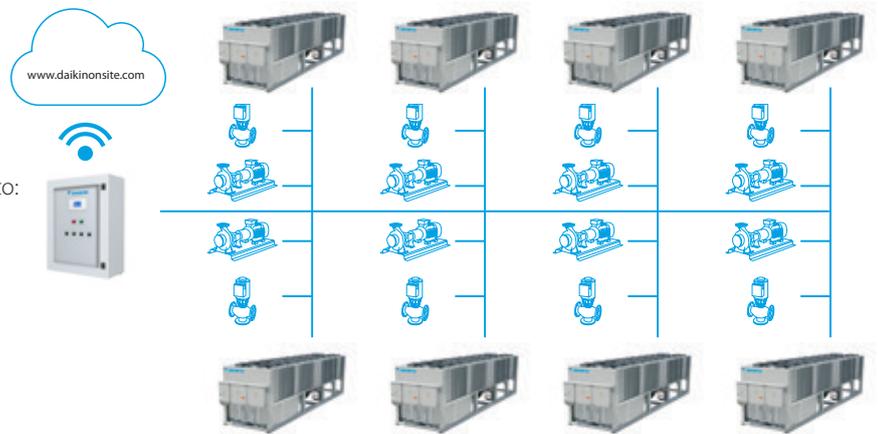
# Access

your plant wherever you are  
and whenever you want

Daikin's remote monitoring and control collects operational data from the control system of a Daikin chiller or air-handling unit plant. Daikin's Smartcentre then turns this data into useful information on a web-user interface.

## Daikin's remote monitoring has predefined user roles like:

- › Operator
- › Service provider
- › Daikin specialists
- › The features of Daikin's remote monitoring are designed to:
  - › Increase uptime, reduce unscheduled interruptions
  - › Optimise efficiency and reduce energy waste
  - › Increase lifetime and avoid wear by misuse
  - › Give insight into the optimum use of equipment, including advice from a Daikin expert



## What is in iCM for you?

### Peace of mind by:

- › Having remote access to your plant through the Internet anytime and anywhere: know what is going on!
- › Having Daikin expertise to hand: a Daikin technician could connect to your plant if needed (installation & commissioning support, unstable operation, etc.)

### Save money, time and effort by:

- › Remotely controlling your plant: you do not need to be present in the plant room
- › Having easy and quick access to necessary data for maintenance, energy management, follow-up and reporting

**Show your environmental responsibility** by owning the most advanced Daikin solution to optimise the performance of Daikin chillers.

**Demonstrate your success** by measuring and verifying the energy efficiency of your plant.

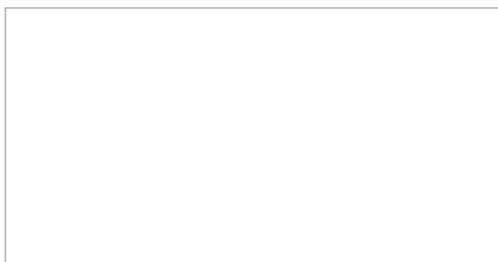
**Minimise the risk** of an unexpected breakdown by 24/7 alarm monitoring and emailing.

**Test it!** Standard version includes a one-year connection to [www.daikinon-site.com](http://www.daikinon-site.com)

**Save energy** by optimising the partialisation of the chillers through the intelligent optimal load control logic.

**Maximise the lifetime** of your plant room by balancing running hours, and start/stop cycles.

## Maximise reliability and lifetime Control and monitor your plant room remotely



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